APPENDIX A: ISSUES, QUESTIONS AND CONCERNS FROM PUBLIC MEETINGS

At each of the public meetings (Table 1), representatives from the Division of Entomology and Plant Pathology presented the proposed Gypsy Moth project, and answered and received questions and comments. The presentation explained:

- the life cycle, feeding habits and hosts of Gypsy Moth,
- the identification of Gypsy Moth,
- survey methods,
- Gypsy Moth impacts and damage to the trees and forest,
- selection of proposed sites,
- selection of the treatment options,
- the timing and application of treatments,
- boundaries of the treatment sites with maps and photos,
- and the public comment time period and decision process.

Both during and following the presentation, questions and comments were taken, answered and discussed with the people attending the meetings. Representatives of the Division of Forestry and Purdue University also attended the meetings and assisted in answering and discussing questions and comments from the people attending the meetings.

The questions and comments received at the public meetings concerned four main issues:

- Human and animal health and safety;
- Nontarget effects and environmental effects;
- Economic and political impacts;
- Likelihood of success of the proposed project, past projects and the treatment options proposed.

ISSUES

Human health and safety

The questions and comments received at the public meetings regarding human health and safety were in three areas:

- The use and risk of Btk and pheromone flakes;
- The decision and notification process for the implementation of the project; and
- The time of application of Btk and pheromone flakes.

Btk questions concerned the risk to adults and children and when people can go outside after treatment. The responses explained that Btk is a naturally occurring soil bacterium; that minor eye or nasal irritation may occur in a few people; that treatments are halted when children or school buses are present; and that no hazard has been identified for the

general public when exposed to Btk. Exposure to Btk can be avoided by staying inside until the spray residue dries with a suggested time period of 30 minutes.

Questions concerning risk to humans for mating disruption pheromone were received in one meeting, asking whether people should stay inside during pheromone application. The response indicated that there is no risk from the pheromone or glue used with the flakes.

Notification questions concerned how the people in the sites would be notified when the treatments would occur. The response to notification explained that the public would be notified by direct mail and through public notice and news release of the date and time of treatment.

Questions were received regarding the method of application. The presentation on the proposed project explained that all application is done by aircraft flying 50-100 feet above treetops. Application of Btk is done once or twice and occurs in late April through late May, with each application starting shortly after dawn. Application continues until done or until winds exceed 10-15 mph. The application of pheromone flakes is done once and occurs in mid June to early July with the application starting shortly after dawn and continuing through the day.

Nontarget and environmental effects

For the use of Btk, nontarget questions inquired about Btk effects on wildlife, butterflies, other defoliating insects, fish, fruit on fruit trees, farm animals (horses, chickens) and songbirds.

For the risk to nontargets, the responses explained that Btk would have no affect on wildlife, fish, fruit on fruit trees, farm animals (horses, chickens) and songbirds. But Btk could have an affect on other caterpillars of butterfly and moths. The responses explained that protection of threatened and endangered butterflies is considered in the decision-making process. For native caterpillars, the response indicated that some would be impacted if the caterpillar stage (such as eastern tent caterpillar) is present at the time of application.

For the use of pheromone flakes, nontarget questions inquired about effects on butterflies, fish, cattle and other organisms. The responses explained that the pheromone in the flakes only affects Gypsy Moth.

The questions on environmental effects of Btk asked about potential damage to aquatic situations (ponds). The responses explained that, if possible, ponds are not treated. However small ponds may not be avoided, but the application of Btk would not harm the pond.

The questions on environmental effects of pheromone flakes asked how long they last, how long they persist in the environment and would they affect fish and cattle.

The response explained that the flake emits pheromone for 12-16 weeks, that the flake may take 10-15 years to biodegrade, and that the flake has very low toxicity towards fish and cattle. It was explained that the label does not recommend application to pastures and food crops.

During the response to nontarget and environmental questions, the response explained that direct application of Btk and pheromone flakes to water is to be avoided.

The response explained the impact of Gypsy Moth defoliation on single trees and forests. The response also explained the public nuisance impact of Gypsy Moth on the urban environment.

Economic and political impacts

People asked who paid for the treatment, whether comments should be made for or against the proposed plans, how the decision to proceed is made, and what other states are doing about Gypsy Moth.

The response stated that the treatment cost is shared between the USDA-Forest Service and the Indiana Department of Natural Resources. Public input is part of the decision-making process and comments for or against the proposed project is encouraged and welcomed.

The response explained the decision process for the project, including: the process to select treatment sites, determine the treatment alternatives, and involve the public through public meetings and comments. The response also explained when the decision to do, or not do, the project would be made.

Regarding what other states do about Gypsy Moth, the response explained that other states in the Slow-The-Spread Program do similar treatment projects and that states in the generally infested area, such as Michigan, follow and approach to suppress defoliation to manage Gypsy Moth.

Contrasting to past years, questions regarding quarantine were not raised in public meetings.

Likelihood of success

The questions received included:

1) How effective were previous treatments?
2) How often would areas have to be treated?
3) How can homeowners help control Gypsy Moth?
4) When would Gypsy Moth be established in the area?
5) How effective is each treatment type?

6) How are sites and treatment methods selected?
7) Where can people go to get information on treatment results?
8) Why did some areas have to be revisited?
9) Why does STS seek to control rather than eradicate Gypsy Moth?
10) Does treatment affect the edges of treated areas as well?
11) Why is there a bulge in the Gypsy Moth line (from the maps showing infestation across the USA.)?

The responses explained the results of trapping of the 2005 treatment sites and that weather during and after application affected treatment effectiveness, which result in sites being proposed for treatment in 2006.

The response to how often areas should be treated explained that sites are treated one year and not usually treated the following year unless weather conditions cause the treatment to fail. The response also explained that the male moth trap catch and the presence of eggmasses determine the determine use of Btk and/or mating disruption and the number of applications. For Btk, two applications are used. For mating disruption, one application is used and that some mating disruption sites may have a small area treated once with Btk.

People could help the IDNR control Gypsy Moth by calling the IDNR if they suspect Gypsy Moth. The response also included that homeowners can use any insecticide labeled for Gypsy Moth or caterpillars and it would be best to use a licensed applicator to do the treatment. Barriers, such as burlap, and the application of oil to smother eggmasses were also explained.

The response to when Gypsy Moth would be established explained that Gypsy Moth could be established in the treatment areas in 5-15 years depending on treatment success, natural and artificial movement of Gypsy Moth and other factors.

The response to effectiveness explained that success is directly linked to what we know about the Gypsy Moth population in terms of density, area occupied, host availability and weather. To be effective the treatment has to be carefully selected and applied properly and at the right time. Pheromone traps are placed on intensive grids after treatment and the number of moths caught indicates success. It was explained that treatment success would be determined the same year of treatment for Btk, but it would be 2007 before the pheromone flake success could be determined.

Regarding site and treatment method selection, the response explained that the Gypsy Moth Slow The Spread program analyzes the results of the Gypsy Moth survey to identify sites. Then analysis by IDNR and USFS staff propose the treatment method for each site based on survey results, presence of eggmasses and habitat. The response also gave the STS website (http://gmsts.org) that people could visit to find the results of the survey and the proposed treatment sites.

Regarding control vs. eradication treatments, it was explained that it is not economically feasible to completely eradicate Gypsy Moth.

It was explained that spray blocks are designed to get at core and outlying populations. People on the edges of spray blocks would not expect to see effects, but then these areas should not be infested.

The "bulge" in the moth lines response explained that this is the result of natural movement and artificial movement by man.

OTHER QUESTIONS AND CONCERNS

People asked about trapping and survey methods; expressed a desire to know who would come to check out their trees; about the Gypsy Moth biology; and about the biology of other insects. People inquired about what plant species Gypsy Moth preferred, especially landscape plants. Finally, an increasing number of questions have begun to be asked concerning emerald ash borer (EAB).

The response for trapping and survey methods explained how traps are set and moths counted.

The response for checking trees for Gypsy Moth explained that the IDNR would send an employee to examine trees suspected of having Gypsy Moth.

The responses about other insects explained the differences between fall webworm, eastern tent caterpillar, catalpa worms, (native Lepidopteron that sometimes reach infestation levels), butterflies in general, and Gypsy Moth. It was explained that Gypsy Moth has a life cycle to feed earlier in the year than some of these other insects, and they would probably not be affected by control treatments.

The responses of preferred Gypsy Moth food included many landscape species (e.g. flowering crabapples) and included over 500 species of flowering plants.

Answers regarding EAB were provided based on the current state of knowledge of life cycle, control, infestations, etc.

Table 1: Date, time and attendance of Public Meeting(s) for the proposed treatment sites by county.

COUNTY	SITE	DATE	TIME	# Attending
Allen	Northwest Allen County Huntertown South Huntertown North Ege Fort Wayne Fort Wayne East Fort Wayne West	January 25, 2006	2:00 PM 7:00 PM	40
Allen Noble Whitley	Northwest Allen County Huntertown North Huntertown South Ege Churubusco County Road 300 North & 650 East	January 23, 2006	2:00 PM	24
Allen Whitley	Arcola Lincoln Way	January 30, 2006	2:00 PM	5
Elkhart	Wakarusa	January 19, 2006	10:00 AM	5
Elkhart	Elkhart/Osceola Hively Road County Road 4 & 11	January 24, 2006	1:00 PM 4:00 PM	59
Elkhart St. Joseph	Darden Road Lilac Road	January 20, 2006	1:00 PM 4:00 PM	14
Kosciusko	Lake Wawasee	January 19, 2006	1:00 PM	5
LaPorte	Springville	January 17, 2006	10:00 AM	2
Porter	Portage	January 17, 2006	2:00 PM	0
Porter	Cobb's Corner	January 18, 2006	11:00 AM	7
Noble	Chain O'Lakes	January 23, 2006	10:00 AM	3